

Sheona Boardman* & Wesley Reginald Pieters*⁷
Abstract

Poor health and well-being have led to less productive employees, lower quality decisions and higher levels of absenteeism. Physical activity, psychological well-being, general health and happiness are constructs that all influence a person's overall well-being in their professional and personal lives. This quantitative study investigated the impact of general health and psychological well-being on happiness of cyclists in Namibia that took part in the Nedbank Cycle Challenge 2019 (n=160). Making use of descriptive statistics, correlation analysis and regression analysis the data was analysed. This study found a relationship between somatic symptoms, anxiety/insomnia, social dysfunction (general health), personal relations (psychological well-being) and happiness. Regression analysis identified that personal relations (positively), social dysfunction and anxiety/insomnia (negatively) predicted happiness of cyclists in Namibia. Interventions for employees such as team building and emotional intelligence training are needed to increase personal relations between colleagues, subordinates and supervisors. It is suggested that there is a need for an increase in awareness regarding the benefits of exercise since this may have a positive impact on employees, reducing absenteeism, improving productivity, work engagement and organisational commitment. Employees and organisations need to prioritise psychological and physical well-being of all employees to ensure longevity, quality of life and organisational prosperity.

Keywords: *Psychological well-being, health, happiness, organisational effectiveness*

Introduction

The field of psychology has become a field dominated by the focus on disease in human functioning, but this view neglects what it means for the individual to thrive (Seligman &

⁷ Biography of Authors

***Sheona Boardman** is an Industrial/Organisational Psychology graduate from the University of Namibia. Her research interest includes health and wellness, psychometrics and employee effectiveness.

***Wesley R. Pieters** is currently employed as a Senior Industrial/Organisational Psychology lecturer at the University of Namibia in Windhoek. His research is focused on organisational effectiveness, employee wellness, organisational justice/fairness, effective leadership and healthy job attitudes of employees.

Csikszentmihalyi, 2014). Ryff and Keyes (1995) argue that looking only at the presence of mental illness symptoms to determine wellness is insufficient. It is thus suggested to explore the positive aspects of human functioning as well.

Happiness can be described as the subjective evaluation of one's well-being (Diener, 2000). Happy individuals are likely to be successful across many life domains including work and family. Successful people are likely to be happy, not only because success makes individuals happy, but also because happy people are likely to be successful because happiness is linked with behaviors such as optimism, energy, sociability and originality (Lyubomirsky, King, & Diener, 2005). Another variable that's also focused on in this study is psychological well-being.

Psychological well-being is based on self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life and personal growth (Ryff, 1989). Psychological well-being has many benefits such as lowering anxiety symptoms, better hormone regulation, improved immune function, lower risk for cardiovascular diseases, better sleep, and it helps individuals thrive in the face of challenges (Ryff & Singer, 2008). Health and well-being in the workplace need to become a more prominent issue in organisational research because poor health and well-being results in less productive work, employees making lower quality decisions and higher absenteeism (Danna & Griffin, 1999). Psychological well-being, like physical health/well-being, is important to the overall functioning of employees.

Regular physical exercise increases psychological well-being and levels of happiness. Individuals who exercise at least two to three times per week not only show lower levels of depression, anger and stress, but are also better able to handle stressors in life (Hassmen, Koivula, & Uutela, 2000). Exercise also increases levels of happiness, and happiness is related to higher efficiency, hope and quality of life (Gatab & Pirhayti, 2012). Regular physical activity directly influences individuals' performance at work with benefits such as enhanced speed and accuracy of work, improved attention and memory (Wissing, Potgieter, Guse, Khumalo, & Nel, 2014). According to the World Health Organization (WHO), one in four adults does not engage in adequate physical activity to benefit from reducing the risk of chronic diseases or to improve their health and well-being (Guthold, Stevens, Riley, & Bull, 2018). In Namibia, a study done on employees at NAMDEB mining showed that 42% of employees were overweight and 32% were obese. This shows that obesity has a considerable impact of working capacity (Haufiku, 2008).

Employee health and wellness has become a major concern in the 21st century with growing awareness that the wellness of the organisation depends largely on the well-being of employees (Werner, 2007). Employee well-being includes not only physical health but also psychological well-being (Werner, 2007).

Individuals who take part in programs to make better lifestyle choices such as diet and exercise were shown to improve not only their physical health, but also their mental alertness, morale and an increase in production (Danna & Griffin, 1999). Increasing levels of psychological well-being and happiness in employees has many benefits to those individuals as well as to organisations. Happy employees achieve higher productivity at work (Oswald, Proto, & Sgroi, 2015), are more likely to cope with challenges, are less likely to be absent from work and are more likely to pursue new goals (Boehm & Lyubomirsky, 2008).

Employees with appropriate levels of psychological well-being were not only more professional, trustworthy and more loyal to their organisation (Žižek, Treven, & Čančer, 2015), but they also had lower stress levels which leads to greater employee commitment to the organisation (Awuku, 2013).

Hypotheses of the study

Null Hypothesis (H₀): The variance in happiness cannot be statistically explained by general health and psychological well-being amongst cyclists in Namibia.

Alternative Hypothesis (H₁): The variance in happiness can be statistically explained by general health and psychological well-being amongst cyclists in Namibia.

Literature review

Happiness can be described as experiencing more frequent positive emotions such as joy and interest with infrequent negative emotions like sadness and anger (Lyubomirsky et al., 2005). While, according to Diener (2000), happiness can be described as the subjective evaluation of one's well-being.

Regarding well-being, the hedonic perspective describes well-being as feeling good which includes happiness, enjoyment, pleasure and comfort. The eudaimonic perspective has a broader definition which includes meaning in life, expressing one's potential and being involved in something larger than oneself, encompassing a person who is functioning well (Wissing et al., 2014). Ryff (1989) embraces the eudaimonic perspective in the definition of psychological well-being as including self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life and personal growth.

The World Health Organisation defines health as a complete state of physical, mental and social well-being not only the absence of disease (WHO, 1948).

Relationship between psychological well-being and general health

Ryff and Singer (2008) explained that there are many benefits related to physical health. These benefits include high levels of psychological well-being, emphasising that high levels of self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life and personal growth are a key component of what keeps an individual healthy, even when facing adversity (Ryff & Singer, 2008). High psychological well-being is linked to higher cerebral activity which is associated with reduced probability of depression (Ryff & Singer, 2008).

Biddle and Mutrie (2008) indicate that there exists a clear positive relationship between physical activity and psychological well-being. Some of these benefits include positive relationships with levels of self-sufficiency, better sleep characterised by falling asleep faster and sleeping longer and deeper and better cognitive functioning. Depression and other mental health problems have a direct negative impact on physical health increasing the risk for chronic diseases such as coronary heart disease (Biddle & Mutrie, 2008).

Hassmen et al. (2000) reported a positive relationship between exercise and psychological well-being. Regular exercise was shown to not only have physical benefits, but to also result in greater psychological well-being. Participants who exercised two-to-three times per week showed higher levels of psychological well-being, lower levels of depression, anger and stress. These individuals are thought to manage stress better in life as well as maintaining their health.

Relationship between psychological well-being and happiness

Heizomi, Allahverdipour, Jafarabodi and Safaian (2015) investigated the levels of happiness in adolescents and its relationship with psychological well-being. It was indicated that there is a close relationship between levels of happiness and psychological well-being. Students with high levels of happiness and psychological well-being reported better performance in school and success in life. High levels of happiness were linked to desirable characteristics, performance and decreased levels of perceived stress. Stress was noted to have a major influence on decreasing levels of happiness and psychological well-being (Heizomi et al., 2015).

Diener (1984) conducted an in-depth study on happiness. A positive relationship was found between happiness and self-esteem, self-acceptance, satisfaction with life and work life, as well as good health. Religious affiliation increased individuals' level of happiness because of the positive relations with others and belief (Diener, 1984).

Relationship between general health and happiness

Gatab and Pirhayti (2012) confirmed that through sports and group physical activities, people improve their relations with others and self-confidence which increases happiness. Exercise can be effectively used for mental health promotion. Fox (1999) reviewed literature to investigate the benefits of physical activity with findings indicating a moderate association between physical activity and happiness with the best results associated with moderate intensity of exercise.

Hassmen et al. (2000) studied the effects of regular exercise on psychological well-being illustrating that regular exercise increases levels of happiness and psychological well-being. Regular exercise was also associated with lower levels of depression, anger and stress. Rasmussen and Laumann (2013) conducted a study on the role of exercise on mood and happiness. It was found that exercise has a positive relationship with happiness. Exercise during adolescence increases the likelihood for an individual to continue to exercise into adulthood which results in higher levels of happiness. Long-term benefits of exercise include lower levels of stress and lower risk for coronary disease. Exercise was a significant predictor of positive moods (Rasmussen & Laumann, 2013).

Antecedents and outcomes of happiness

Happy employees achieve higher productivity at work (Oswald et al., 2015), are more likely to cope with challenges, are less likely to be absent from work, and are more likely to pursue new goals (Boehm & Lyubomirsky, 2008). Happiness was shown to positively impact job satisfaction, organizational citizenship behaviour and organisational commitment (Swart, 2011).

Lyubomirsky et al. (2005) also indicated that a central component of happiness in people is good social relationships with others. Quality relationships with friends and the level of social support they receive not only influences their happiness, but also results in them having better social relationships with others at work (Lyubomirsky et al., 2005).

Happy individuals have been found to be more likely to engage in physical activities since happier people have been associated with being more active and energetic. They have healthy eating and exercise habits, are less likely to smoke or abuse drugs and alcohol (Lyubomirsky et al., 2005). This thus leads to fewer illnesses, lower levels of absenteeism, better quality of sleep, better functioning immune systems and higher rates of patient compliance with medication or health promoting activities (Lyubomirsky et al., 2005).

Antecedents and outcomes of psychological well-being

Employees with appropriate levels of psychological well-being were found to be professional, trustworthy and more loyal to their organisations (Žižek et al., 2015). Ryff (1989) indicated that a central part of psychological well-being is related to positive relations with others. Having positive relations with others is described as having warm and trusting relationships and being capable of empathy.

Psychological well-being has many benefits such as lowering anxiety symptoms, better hormone regulation, improved immune function, lower risk of cardiovascular diseases, better sleep, and it has been noted to help individuals strive even in the face of challenges (Ryff & Singer, 2008). In organisations, relationships at work have a significant impact on psychological well-being. Dysfunctional work relationships include characteristics such as mistrust of co-workers which is associated with role ambiguity or poor communication. Low psychological well-being leads to insomnia, depression, and panic attacks (Danna & Griffin, 1999).

Antecedents and outcomes of general health

Danna and Griffin (1999) studied the effects of health in the workplace. Employees with high levels of stress and ill-health are associated with increased incidences of coronary heart disease, mental breakdowns, greater likelihood of alcohol or drug abuse, cigarette smoking, susceptibility to accidents and even violence. This also leads to family problems, sexual dysfunction, depression, lower self-esteem and low psychological well-being (Danna & Griffin, 1999). Based on these findings, it is clear that health in the workplace can prevent or mitigate many of the workplace deviant behaviours.

Causes of ill-health and stress in the workplace include, work overload or underload, shift work, long working hours, quality of physical working conditions, role ambiguity and role conflict. On the other hand, high levels of health and well-being in the workplace improves relationships between subordinates and their superiors and decreases workplace violence (Danna & Griffin, 1999). The benefits related to health and well-being highlight the need for organisations and employees to continuously work towards achieving and maintaining high levels of health.

The primary objective of this study is to investigate the relationship between general health, psychological well-being and happiness of cyclists participating in the Nedbank Cycle Challenge 2019. The second objective of this study aimed to investigate the predictability of general health, psychological well-being on happiness of cyclists participating in the Nedbank Cycle Challenge 2019.

Methodology

Research design

An exploratory quantitative research design was used. This study employed questionnaires to collect data on the biographical details and cycling activity of participants, their general health, psychological well-being and happiness to gain insight into the relationship between the variables.

Permission to conduct the research was obtained from Nedbank Namibia, the Namibian Cycling Federation and the University of Namibia. Ethical clearance was also obtained from the University of Namibia.

Population

The population of this study were all cyclists in Namibia aged 18 years and older. Schütz (2019) reported in The Namibian newspaper that the Nedbank Cycle Challenge is the biggest cycling event in Namibia with over one thousand participants.

Sample

The sample used for this research were participants of the Nedbank Cycle Challenge 2019 who were 18 years and older who voluntarily filled out a questionnaire. A total of 161 questionnaires were distributed and one questionnaire that wasn't completed in full. Participants were selected using a simple random sampling technique which Kothari (2004) defines as a sampling technique where each person in the sample population has an equal chance of being selected for the study.

Research instruments

The biographical questionnaire was developed to gain information about the participant's sex, age, educational qualification, number of years cycling, cycling sessions per week, average cycling distance per week and participation in road and/or mountain bike races.

The *General Health Scale* (GHQ-28) developed by Goldberg and Hiller (1979) was used to assess the general health of participants. It is a self-report instrument with a response scale from 1 (not at all) to 4 (much more than usual), with 28-items that consists of four sub-sections measuring somatic symptoms, anxiety and insomnia, social dysfunction, and depression. Sample items include "Felt that you are ill?" for somatic symptoms; "Lost much sleep over worry?" for anxiety and insomnia, and "Felt that life isn't worth living?" for depression. Salama-Younes, Montazeri, Ismaïl and Roncin (2009) reported Cronbach's alpha of .76 for social dysfunction, while Vallejo, Jordán, Díaz, Comeche and Ortega (2007) reported Cronbach's alpha of .84 for somatic symptoms, .83 for anxiety and insomnia, .71 for social dysfunction and .85 for depression when testing for internal consistency.

The *Psychological Well-Being Scale* developed by Ryff and Keyes (1995) was used to assess the psychological well-being of respondents. It is a self-report instrument with 21-items consisting of six dimensions, namely autonomy, environmental mastery, personal growth, positive relations with others, purpose in life and self-acceptance. Sample items include, “Most people see me as loving and affectionate” for positive relations with others; “I have a sense that I have developed a lot as a person over time” for personal growth and “I enjoy making plans for the future and working to make them a reality” for purpose in life. A response scale from 1 (strongly disagree) to 6 (strongly agree) is used. Salama-Younes, Ismaïl and Montazeri (2008) reported Cronbach’s alpha of .84 for autonomy, .88 for environmental mastery, .72 for personal growth, .86 for positive relations with others and .74 for self-acceptance when testing for internal consistency.

The *Subjective Happiness Scale* developed by Lyubomirsky and Lepper (1999) was used to measure the general health of participants. It is a four-item scale with two of them asking respondents to rate themselves and rate themselves relative to their peers, while the last two items give brief descriptions of happy and unhappy individuals and participants respond according to how each describes themselves. Sample items include “Compared to most of my peers, I consider myself:”. Each item has a response scale from 1 (not at all) to 4 (a great deal). Quezada, Landero and González (2016) reported Cronbach’s alpha of .77 when making use of this scale.

Data Analysis

Statistical analysis was conducted through SPSS version 25.0. The Pearson’s correlation coefficient was utilized as a means of measuring the degree of the relationship between variables (Kothari, 2004). Lastly, regression analysis was conducted. Kothari (2004) describes regression as a method to study the functional relationship between two or more variables; thus, regression analysis was used to identify the predictors of happiness.

Results

Biographical details of sample

The demographical data that was collected included sex, age, which type of cycling participates in whether it was mountain bike, road race or both, average cycling distance per week, number

of exercise sessions per week, years of cycling experience and highest obtained qualification. Participants are largely male, comprising 63.8% (n = 102) while females 36.3% (n = 58). Most participants fell into the 30-39 years age range 32.5% (n = 52) followed by 40 – 49 years range 28.1% (n = 45) but ranged from 18-60 and older. By far, the most participants indicated cycling in both mountain bike and road races 70.6% (n = 113), while the highest percentage of cyclists indicating a moderate distance of cycling per week of 50-100km 33.1% (n = 53), followed by less than 50km 30% (n = 48) along with high rates of moderate cycling sessions per week of 1-3 exercise sessions per week 50% (n = 80) followed by 4-5 sessions per week 33.1% (n = 53). The years of cycling experience indicated that most cyclists had 4-7 years of experience 28.8% (n = 46), 1-3 years 26.9% (n = 43) and 13 or more years of cycling experience 21.3% (n = 34) respectively. The highest qualifications of participating cyclists was predominantly a degree (honours) at 31.9% (n = 51), followed by grade 12 28.8% (n = 46), diploma 16.9% (n = 27), certificate 10.6% (n = 17), MA degree 10.6% (n = 17) and lastly PhD degree 0.6% (n = 1).

Table 1

Biographical Details of Sample

Description		Frequency	Percentage
Sex	Male	102	63.8
	Female	58	36.3
Age (in years)	18-23	15	9.4
	24-29	26	16.3
	30-39	52	32.5
	40-49	45	28.1
	50-59	19	11.9
	60 and older	3	1.9
Participate in	MTB only	13	8.1
	Road race only	34	21.3
	MTB and road race	113	70.6
Average cycling per week	Less than 50km	48	30

	50-100km	53	33.1
	101-149km	22	13.8
	150km and more	37	23.1
Number of exercise sessions	Not at all	11	6.9
	1-3 per week	80	50
	4-5 per week	53	33.1
	6 and more per week	16	10
Cycling experience	Less than 1 year	14	8.8
	1-3 years	43	26.9
	4-7 years	46	28.8
	8-12 years	23	14.4
	13 and more years	34	21.3
Highest qualification	Grade 12	46	28.8
	Certificate	17	10.6
	Diploma	27	16.9
	Degree (Hon)	51	31.9
	MA degree	17	10.6
	PhD degree	1	0.6
TOTAL		160	100

Descriptive statistics

The Pearson Correlation Coefficient test was used to calculate the relationships between somatic symptoms, anxiety and insomnia, social dysfunction (general health), positive relations (psychological well-being) and subjective happiness.

<i>Item:</i>		<i>TOTAL</i>		<i>α</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
		<i>MEAN</i>	<i>SD</i>						
1.	GH-SS	5.32	1.56	.73	-				
2.	GH-AI	9.11	3.16	.84	.55++	-			
3.	GH-SD	18.78	5.02	.90	.48+	.59++	-		
4.	PR	32.14	6.17	.70	-.16*	-.41*+	-.35*+	-	
5.	SHAP	16.29	3.77	.84	-.27*	-.36*+	-.53*++	.37+	-

rank order correlation

Table 2

*Descriptive
statistics
and
Pearson*

* Statistically significant: $p \leq 0,05$

+ Practically significant correlation (medium effect): $0,30 \leq r \leq 0,49$

++ Practically significant correlation (large effect): $r \geq 0,50$

1. GH-SS= General Health (Somatic Symptoms)
2. GH-AI= General Health (Anxiety and Insomnia)
3. GH-SD= General Health (Social Dysfunction)
4. PR= Psychological Well Being (Positive Relations)
5. SHAP= Subjective Happiness

In Table 2, General health somatic symptoms results reported a Standard Deviation (SD) of 1.56, Mean (M) = 5.32 and reliability (α) = 0.73. Anxiety and insomnia reported SD =3.16, M = 9.11

and reliability (α) = 0.84. Social dysfunction reported SD = 5.02, M = 18.78 and reliability (α) = 0.90. Psychological well-being (positive relations) reported SD = 6.17, M = 32.14 and reliability (α) = 0.70. Subjective happiness reported SD = 3.77, M = 16.29 and reliability (α) = 0.84.

Somatic symptoms (GH) reported a relationship with anxiety and insomnia (GH) ($r = 0.55, p < 0,05$; large effect), social dysfunction (GH) ($r = 0.48, p < 0,05$; medium effect), positive relations (PWB) ($r = -0.16, p < 0,05$; small effect), subjective happiness (SHS) ($r = -0.27, p < 0,05$; small effect). Anxiety and insomnia (GH) reported a relationship with social dysfunction (GH) ($r = 0.59, p < 0,05$; large effect), positive relations (PWB) ($r = -0.41, p < 0,05$; medium effect), subjective happiness (SHS) ($r = -0.36, p < 0,05$; medium effect). Social dysfunction (GH) reported a relationship with positive relations (PWB) ($r = -0.35, p < 0,05$; medium effect), subjective happiness (SHS) ($r = -0.53, p < 0,05$; large effect). Lastly, positive relations (PWB) reported a relationship with subjective happiness (SHS) ($r = 0.37, p < 0,05$; medium effect).

Multiple regression

In order to test the second objective, multiple regression analyses were performed. Table 3 shows that in Model 1, anxiety and insomnia (general health) with social dysfunction (general health) was included as the independent variables. In Model 2, positive relations (psychological well-being) was added to the model; subjective happiness is the dependent variable.

Table 3

Multiple Regression with Subjective Happiness being the dependent variable and Anxiety/Insomnia and Social dysfunction (General Health) and Positive Relations (Psychological Well-being) the independent variables

Model	Unstandardized Coefficients		Standardized Coefficients	t	P	F	R²	ΔR²
	B	SE	(β)					
1								
(Constant)	23.93	1.01	-	23.71	0.00	31.02	0.28	0.27
GH_AI	-.09	.10	-0.08	-.94	0.35			
GH_SD	-.36	.06	-.48	-5.77	0.00*			
2					0.00	24.28	0.32	0.31
(Constant)	18.67	2.10	-	8.88	0.00			
GH_AI	-.02	.10	-.02	-.18	0.86			
GH_SD	-.34	.06	-.45	-5.41	0.00*			
PR	.13	.05	.21	2.83	0.01*			

t, test; *p*, probability value; *F*, overall significance; *R*², percentage variance explained; Δ*R*², change in percentage variance explained; *B*, regression coefficient; *SE*, standard error.

p* ≤ 0.05; *p* ≤ 0.01.

In Table 3, it can be seen that when anxiety and insomnia (general health) and social dysfunction (general health) was introduced into Model 1, it produced a significant model ($F_{(1,159)} = 31.02; p > 0.00$) and account for about 27% of the variance (0.27%). It appears social dysfunction (general health) ($\beta = -0.36; t = -5.77; p < 0.00$) is a significant predictor of subjective happiness (negatively). Positive relations (psychological well-being) was introduced in Model 2 to produce a significant model ($F_{(3,159)} = 24.28; p > 0.00$) and account for about 31% of the variance (0.31%). It appears that social dysfunction ($\beta = -0.34; t = -5.41; p > 0.00$) is a significant predictors of subjective happiness (negatively). Positive relations (psychological well-being) ($\beta = 0.13; t = 2.83; p > 0.01$) is a significant predictors of subjective happiness

(positively). Anxiety and insomnia (general health) ($\beta = -0.02$; $t = -0.18$; $p < 0.86$) was found not to be a significant predictor of subjective happiness.

Discussion and conclusion

Ryff and Singer (2008) found a positive relationship between physical health and psychological well-being. The findings of this study found that negative health dimensions (somatic symptoms, anxiety and insomnia, social dysfunction) reported a negative relationship with individuals' psychological well-being. This means that employees with high levels of health and well-being in the workplace have improved relationships, and workplace violence may decrease (Danna & Griffin, 1999).

Heizomi et al. (2015) found that psychological well-being related positively with subjective happiness. This study found the same positive relationship. This means that when employees experience good positive relations, they are likely to experience less stress and possibly greater organisational commitment (Awuku, 2013).

Ryff and Singer (2008) found a positive relationship between psychological well-being and higher quality sleep. The findings of this study found the same relationship between anxiety and insomnia (general health) and psychological well-being, and they in turn have a strong impact on an individual's happiness. This means that when employees experience low levels of psychological well-being, poor sleep and anxiety, they are likely to experience dysfunctional work relationships and possibly higher levels of absenteeism (Danna & Griffin, 1999).

Gatab and Pirhayti (2012) found a positive relationship between exercise aimed to improve general health and improvement in levels of happiness, decreased somatic symptoms and social dysfunction. This study found the same relationship between somatic symptoms (general health), social dysfunction (general health) and happiness. This means that employees who are healthier and participate in physical activity are likely to have good relationships with others, have higher levels of happiness and have improved performance (Boehm & Lyubomirsky, 2008).

The primary objective of this study was to investigate the relationship between general health, psychological well-being and happiness of cyclists participating in the Nedbank Cycle Challenge

2019. From the results obtained, evidence indicates that general health and psychological well-being does have an impact on participants' happiness.

The second objective of this study aimed to investigate the predictability of general health, psychological well-being on happiness of cyclists participating in the Nedbank Cycle Challenge 2019. The multiple regression analyses concluded that somatic symptoms, anxiety and insomnia (general health) are the best negative predictors of happiness. Positive relations with others (psychological well-being) are the best positive predictor of happiness in cyclists in Namibia. Anxiety and insomnia (general health) being the weakest negative predictor of happiness.

Recommendations and practical implications

Workshops are needed within organisations to communicate the benefits of exercise because of its many physical and psychological benefits which lead to enhanced accuracy of work, improved attention and memory (Wissing et al., 2014).

Organisations can invest in health programs or provide benefits to improve the wellness of employees through exercise facilities, fitness and weight management programs (Cummings & Worley, 2008). Improving employees' level of physical activity will have a positive impact on employee health, decreasing medical costs, reducing absenteeism and turnover, improving employee morale and job satisfaction.

Due to the spill-over effect between work and personal life, healthier workers will improve both areas of their lives leading to improved morale and job satisfaction (Danna & Griffin, 1999). Happy employees influence happy societies.

To improve the happiness of employees, organisations need to implement interventions to increase positive relations such as team building exercises and emotional intelligence training to develop healthy interpersonal relationships (Cummings & Worley, 2008). Having healthy interactions with colleagues, supervisors and subordinates enhance employee and organisational effectiveness.

References

- Awuku, E. N. (2013). *Stress, work engagement and psychological well-being of nurses at state hospitals in Windhoek, Rehoboth and Okahandja* (unpublished master's thesis). University of Namibia, Namibia.
- Bandura, A. (1991). Social Cognitive Theory of Self-Regulation. *Organizational Behavior and Human Decision Processing*, 50, 48-287. [https://doi.org/10.1016/0749-5978\(91\)90022-L](https://doi.org/10.1016/0749-5978(91)90022-L)
- Becker, M. H., Haefner, D. P., Kasl, S. V., Kirscht, J. P., Maiman, L. A., & Rosenstock, I. M. (1977). Selected psychosocial models and correlates of individual health-related behaviours. *Medical Care*, 15(5), 27-46. URL: <http://jstor.org/stable/3763352>
- Biddle, S. J. H., & Mutrie, N. (2008) *Psychology of Physical Activity*. New York: Taylor & Francis Group.
- Boehm, J. K., & Lyubomirsky, S. (2008). Does happiness promote career success?. *Journal of Career Assessment*, 16(1), 101-116. doi: 10.1177/1069072707308140
- Cummings, T. G. & Worley, C. G. (2008). Organisation development & change. *Workforce diversity and change* (pp 428-528). Stamford, Connecticut: Cengage Learning.
- Danna, K., & Griffin, R. W. (1999). Health and well-being in the workplace: A review and synthesis of the literature. *Journal of Management*, 25(3), 357-384. <https://doi.org/10.1177%2F014920639902500305>
- Diener, E. (1984). Subjective Wellbeing. *Psychological Bulletin*, 95(3), 542-575.
- Diener, E. (2000). Subjective well-being: The science of happiness and a proposal for a national index. *American Psychologist*, 55(1), 34-43. <https://psycnet.apa.org/doi/10.1037/0003-066X.55.1.34>
- Dodge, R., Daly, A., Huyton, J., & Sanders, L. (2012). The challenge of defining wellbeing. *International Journal of Wellbeing*, 2(3), 222-235. doi: 10.5502/ijw.v2i3.4
- Fox, K. R. (1999). The influence of physical activity on mental well-being. *Public Health Nutrition*, 2(3a), 411-418. doi: 10.1017/s1368980099000567

- Gatab, T. A., & Pirhayti, S. (2012). The effect of the selected exercise on male students' happiness and mental health. *Procedia-Social and Behavioral Sciences*, 46, 2702-2705. DOI: 10.1016/j.sbspro.2012.05.550
- Goldberg, D. P., & Hillier, V. F. (1979). A scaled version of the general health questionnaire. *Psychological Medicine*, 9 (1), 139-145. <https://psycnet.apa.org/doi/10.1017/S0033291700021644>
- Guthold, R., Stevens, G. A., Riley, L. M., & Bull, F. C. (2018). Worldwide trends in insufficient physical activity from 2001 to 2016: a pooled analysis of 358 population-based surveys with 1·9 million participants. *The Lancet Global Health*, 6(10), 1077-086. [https://doi.org/10.1016/S2214-109X\(18\)30357-7](https://doi.org/10.1016/S2214-109X(18)30357-7)
- Hassmen, P., Koivula, N., & Uutela, A. (2000). Physical exercise and psychological well-being: a population study in Finland. *Preventive Medicine*, 30(1), 17-25. <https://doi.org/10.1006/pmed.1999.0597>
- Haufiku, D. (2008). *Prevalence and factors associated with obesity amongst employees of open-cast diamond mine in Namibia* (Unpublished Doctoral dissertation). University of the Western Cape, South Africa.
- Haufiku, D., & Amukugo, H. J. (2015) Prevalence and factors associated with obesity amongst employees of open-cast diamond mine in Namibia. *International Journal of Advanced Nursing Studies*, 4(2), 85-93. doi: 10.14419/ijans.v4i2.4906
- Heizomi, H., Allahverdipour, H., Jafarabadi, M. A., & Safaian, A. (2015). Happiness and its relation to psychological well-being of adolescents. *Asian Journal of Psychiatry*, 16, 55-60. doi:10.1016/j.ajp.2015.05.037
- Janz, N. K., & Becker, M. H. (1984). The health belief model: A decade later. *Health Education Quarterly*, 11(1), 1-47. <https://doi.org/10.1177%2F109019818401100101>
- Kothari, C. R. (2004). *Research methodology: Methods and techniques*. New Age International, New Delhi, India.
- Lykken, D., & Tellegen, A. (1996). Happiness is a stochastic phenomenon. *Psychological Science*, 7(3), 186-189. <https://doi.org/10.1111%2Fj.1467-9280.1996.tb00355.x>

- Lyubomirsky, S., & Lepper, H. S. (1999). A measure of subjective happiness: Preliminary reliability and construct validation. *Social Indicators Research*, 46, 137-155.
<https://psycnet.apa.org/doi/10.1023/A:1006824100041>
- Lyubomirsky, S., King, L., & Diener, E. (2005). The benefits of frequent positive affect: Does happiness lead to success?. *Psychological Bulletin*, 131(6), 803-855.
<https://psycnet.apa.org/doi/10.1037/0033-2909.131.6.803>
- Oswald, A. J., Proto, E., & Sgroi, D. (2015). Happiness and productivity. *Journal of Labor Economics*, 33(4), 789-822. doi:10.1086/681096
- Quezada, L., Landero, R., & González, M. T. (2016). A validity and reliability study of the Subjective Happiness Scale in Mexico. *Journal of Happiness and Well-Being*, 4(1), 90-100. DOI: 10.1556/0406.20.2019.010
- Rasmussen, M., & Laumann, K. (2013). The academic and psychological benefits of exercise in healthy children and adolescents. *European Journal of Psychology of Education*, 28(3), 945-962. <https://psycnet.apa.org/doi/10.1007/s10212-012-0148-z>
- Rogers, C. R. (1974). Toward becoming a fully functioning person. *Readings in Human Development: A Humanistic Approach*, 33, 33-45.
- Rogers, R. W. (1975). A protection motivation theory of fear appeals and attitude change¹. *The Journal of Psychology*, 91(1), 93-114.
- Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, 57(6), 1069-1081. <https://psycnet.apa.org/doi/10.1037/0022-3514.57.6.1069>
- Ryff, C. D., & Keyes, C. L. M. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology*, 69, 719-727.
<https://psycnet.apa.org/doi/10.1037/0022-3514.69.4.719>
- Ryff, C. D., & Singer, B. H. (2008). Know thyself and become what you are: A eudaimonic approach to psychological well-being. *Journal of Happiness Studies*, 9(1), 13-39. DOI 10.1007/s10902-006-9019-0

- Schütz, H. (2019, January 31). Nedbank Cycle Challenge launched for 34th year. Retrieved from <https://www.namibian.com.na/75156/read/Nedbank-Cycle-Challenge-launched-for-34th-year>.
- Seligman, M. E. P. (2011) *Flourish: A visionary new understanding of happiness and well-being*. New York: Free Press.
- Seligman, M. E., & Csikszentmihalyi, M. (2014). Positive psychology: An introduction. In *Flow and the foundations of positive psychology* (pp. 279-298). Springer, Dordrecht.
- Swart, J. P. (2011). *Antecedents and outcomes of happiness of managers in the agricultural sector in South Africa* (Unpublished Doctoral dissertation) North-West University, South Africa.
- Swartz, L., De la Rey, C., Duncan, N., & Townsend, L. (2004). *Psychology: an introduction*. South Africa: Oxford University Press Southern Africa.
- Vallejo, M. A., Jordán, C. M., Díaz, M. I., Comeche, M. I., & Ortega, J. (2007). Psychological assessment via the internet: a reliability and validity study of online (vs paper-and-pencil) versions of the General Health Questionnaire-28 (GHQ-28) and the Symptoms Check-List-90-Revised (SCL-90-R). *Journal of Medical Internet Research*, 9(1), e2. doi: 10.2196/jmir.9.1.e2
- Werner, A. (2007). *Organisational behaviour: A contemporary South African perspective*. Van Schaik Publishers, Pretoria, South Africa.
- World Health Organization (1948). Constitution of the World Health Organization. https://www.who.int/governance/eb/who_constitution_en.pdf
- Wissing, M. P., Potgieter, J. C., Guse, T., Khumalo, I. P., & Nel, L. (2014). *Towards flourishing: Contextualising positive psychology*. Van Schaik Publishers; Pretoria, South Africa.
- Žižek, S. Š., Treven, S., & Čančer, V. (2015). Employees in Slovenia and their psychological well-being based on Ryff's model of psychological well-being. *Social Indicators Research*, 121(2), 483-502. DOI: 10.1007/s11205-014-0645-3